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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/565,801

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EXAMINER

CHUNG, SUSANNAH LEE

ART UNIT

PAPER NUMBER

1626

MAIL DATE

DELIVERY MODE

08/08/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/565,801	Applicant(s) HAGIYA ET AL.	
	Examiner Susannah Chung	Art Unit 1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4 is/are allowed.
- 6) ☒ Claim(s) 8-11 is/are rejected.
- 7) ☒ Claim(s) 5-7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/3/06, 9/14/07, 12/20/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-11 are pending in the instant application.

Priority

This application is a 371 of PCT/JP04/10437, filed 07/15/2004.

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d) by application no. 2003-285266 filed in the Japanese Patent Office on 08/01/2003, which papers have been placed of record in the file. The application names an inventor or inventors named in the prior application.

Information Disclosure Statement

The information disclosure statement (IDS), filed on 9/14/07, 12/20/07, and 5/3/06 have been considered. Please refer to Applicant's copy of the 1449 submitted herewith.

Claim Rejections - 35 USC § 112, 2nd paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, Claim 9 is indefinite because the claim states that the aldehyde group is in an ortho position relative to A1. However, claim 9 is dependent on claim 8, which contains a compound that is subject to a proviso. The compound that is subject to the proviso has the aldehyde group in the ortho position. Further clarification is required so that the two claims do not contain conflicting subject matter.

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Claim Rejections - 35 USC § 103

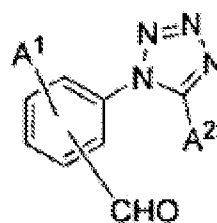
The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

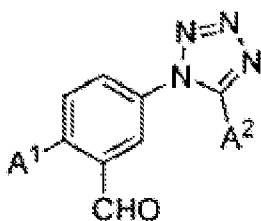
1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 8-11 are rejected under 35 U.S.C. 103(a) as being anticipated by Armour et al., US Pat No 5,703,240 ('240 Pat) and Giblin et al., US Pat No 5,919,803 ('803 Pat).



Applicants claims relate to a compound of Formula (2), , wherein A1

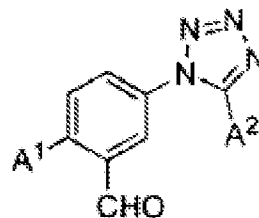
is an alkoxy group and A2 is hydrogen, alkyl or fluorine substituted alkyl, in claims 8-11, which

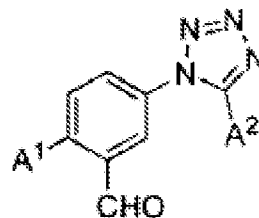


is not

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Determination of the scope and content of the prior art (MPEP § 2141.01)



Armour and Giblin teach compounds of formula , wherein A1 is an alkoxy group and A2 is hydrogen, alkyl or fluorine substituted alkyl.

Armour teaches the following species:

2-Methoxy-5-tetrazol-1-yl-benzaldehyde (see '240 Pat, Col. 20, approx lines 10-20, Intermediate 14);

2-Methoxy-5-(5-methyl-tetrazol-1-yl)-benzaldehyde (see '240 Pat, Col. 20, approx lines 22-28, Intermediate 15);

5-(5-Ethyl-tetrazol-1-yl)-2-methoxy-benzaldehyde (see '240 Pat, Col. 20, approx lines 30-36, Intermediate 16);

2-Methoxy-5-(5-propyl-tetrazol-1-yl)-benzaldehyde (see '240 Pat, Col. 20, approx lines 38-43, Intermediate 17);

3-Fluoro-2-methoxy-5-(5-methyl-tetrazol-1-yl)-benzaldehyde (see '240 Pat, Col. 21, approx lines 10-17, Intermediate 22);

2-Methoxy-5-(5-trifluoromethyl-tetrazol-1-yl)-benzaldehyde (see '240 Pat, Col. 21, approx lines 19-26, Intermediate 23);

2-Ethoxy-5-tetrazol-1-ylbenzaldehyde (see '240 Pat, Col. 21, approx lines 28-33, Intermediate 24); and

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2-Isopropoxy-5-tetrazol-1-ylbenzaldehyde (see `240 Pat, Col. 21, approx lines 35-40, Intermediate 25).

Giblin teaches the following species:

2-Methoxy-5-(5-trifluoromethyl-tetrazol-1-yl)-benzaldehyde (see `803 Pat, Col. 13, approx lines 60-70, Intermediate 6);

[2-(2-ethoxy)-5-(5-trifluoromethyl-tetrazol-1-yl)]-benzaldehyde (see `803 Pat, Col. 14, approx lines 7-29, Intermediate 7); and

[2-(2-Butoxy)-5-(5-trifluoromethyl-tetrazol-1-yl)]-benzaldehyde (see `803 Pat, Col. 16, approx lines 7-25, Intermediate 14).

Ascertainment of the difference between the prior art and the claims (MPEP § 2141.02)

The difference between the prior art and the instant claims is that the instant compound claims are positional isomers or homologues of the known prior art compounds.

In claims 8-10, the difference between the prior art of Armour and Giblin and the instant claims is the position of the A1 moiety.

In claim 11, the difference between the prior art of Armour and Giblin and the instant claim is the position of the A1 and aldehyde moiety.

Finding of prima facie obviousness – rationale and motivation (MPEP § 2142-2413)

However, in the absence of showing unobvious results, it would have been obvious to one of ordinary skill in the art at the time of the invention when faced with Armour and Giblin how to make and use the instantly claimed derivatives of a known product. The instantly claimed compounds and prior art compounds are common derivatives, such as isomers and homologs of one another. Compounds which are position isomers (compounds having the same

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radicals in physically different positions on the same nucleus) or homologs (compounds differing regularly by the successive addition of the same chemical group, e.g., by -CH₂- groups) are generally of sufficiently close structural similarity that there is a presumed expectation that such compounds possess similar properties. In re Wilder, 563 F.2d 457, 195 USPQ 426 (CCPA 1977). See MPEP 2144.09(II).

Prior art structures do not have to be true homologs or isomers to render structurally similar compounds *prima facie* obvious. In re Payne, 606 F.2d 303, 203 USPQ 245 (CCPA 1979) (Claimed and prior art compounds were both directed to heterocyclic carbamoyloximino compounds having pesticidal activity. The only structural difference between the claimed and prior art compounds was that the ring structures of the claimed compounds had two carbon atoms between two sulfur atoms whereas the prior art ring structures had either one or three carbon atoms between two sulfur atoms. The court held that although the prior art compounds were not true homologs or isomers of the claimed compounds, the similarity between the chemical structures and properties is sufficiently close that one of ordinary skill in the art would have been motivated to make the claimed compounds in searching for new pesticides.). See MPEP 2144.09 (III).

Guided by the teaching of Armour and Giblin one skilled in the art would be able to make similar compounds by changing the position of the A1 and aldehyde moieties. The motivation would be to prepare similar compounds that are pharmacologically active compounds that are used in analgesics or as anti-inflammatory agents.

The instant obviousness rejection is based on the close structural similarity of the instantly claimed compounds to the prior art compounds and the common utility shared among

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the compounds. There is an expectation among those of ordinary skill in the art that similar structural compounds will have similar properties and that modification of a known structure is mere experimentation within the means of a skilled artisan. See MPEP 2144.09(I). Therefore, claims 8-11 are rejected as obvious over the prior art.

Claim Objections

Claims 5-7 are objected to under 37 CFR 1.75 as being a substantial duplicate of claim 1. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). The processes of claims 5-7 are the same as the process of claim 1. The only difference is that the final product is a species that is covered by generic claim 1.

Telephone Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susannah Chung, Esq. whose telephone number is (571) 272-6098. The examiner can normally be reached on M-F, 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph McKane can be reached on (571) 272-0699. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Susannah Chung

July 30, 2008

/Joseph K McKane/

Supervisory Patent Examiner, Art Unit 1626